



The Changing Status of Vocational Higher Education in Contemporary Japan and the Republic of Korea



THE CHANGING STATUS OF VOCATIONAL HIGHER EDUCATION IN CONTEMPORARY JAPAN AND THE REPUBLIC OF KOREA

A DISCUSSION PAPER

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EDITOR'S PREFACE

The economies of Japan and the Republic of Korea have often been termed 'economic miracles', as both countries went through rapid economic growth from the post-war period to the 1990s. Since the 1950s, the Asian Tiger States emerged as manufacturing El Dorados, their governments adopting a state-run capitalist approach, providing heavy subsidies to industrial activity, and their workforce being of high productivity and low cost.

After an economic deceleration since the 1990s and the Asian economic crisis of 1997, both countries are nonetheless among the most successful economies in the world, Japan being the world's second largest economy and South Korea's economy ranking 13th in the world and fourth in Asia.

Work skills and skills development are to a large extent at the foundations of this growth, with technical and vocational education and training (TVET) being an important factor in the economic development of Japan and South Korea. Rapid industrialisation and the resulting demand for a skilled workforce caused a veritable boom in the education sector. Today, as the authors demonstrate, enrolment figures for post-compulsory education in Japan and Korea are extremely high.

This paper offers a comparative analysis of the historical as well as institutional framework that helped shape the vocationally-oriented higher education institutions of these two nations, *senmongakko* in Japan and *jeonmun daehack* in South Korea, as well as comparing them to their non-vocational counterparts.

Furthermore, the authors analyse the changing status of these institutions and their adaptability to the world of work, comparing and contrasting them in the light of some key questions, such as student employability, institutions' adaptability to changing labour-market needs, and the role of the state in shaping these institutions. While mostly state-run in Korea, vocationally-oriented higher education institutions in Japan are largely semi-autonomous. The authors identify the impact of these two opposing preconditions on the institutions' programmes: Whereas the Japanese *senmongakko* are chiefly market-oriented with a strong focus on employability and a competitive drive, the South Korean *jeonmun daehack* are highly regulated and designed to graduate technicians with solid theoretical as well as practical skills.

However, the paper also highlights the similarities between these two different concepts of TVET, and concludes with some recommendations on how knowledge on the positive aspects of both types of institutions can benefit TVET policy-making in other countries.

I believe this Discussion Paper constitutes highly relevant reading for those interested in the effects of market liberalisation of higher education on programme and policy.



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1. INTRODUCTION

This paper provides an overview of vocationally-oriented higher education institutions in Japan and the Republic of Korea [referred to as South Korea or Korea hereafter], known respectively as *senmongakko* and *jeonmun daehack*. In the last decade, there have been visible and dynamic changes in the role of these institutions, particularly in Japan. They were surprisingly competitive against universities in the 1990s through the early 2000s; today, they seem to be losing a competitive edge against universities, perhaps in the face of increasing vocationalism in the mainstream universities. And yet, very little, and virtually nothing of an academic nature, has been published about these institutions.

This paper seeks to locate *senmongakko* and *jeonmun daehack* in a historical, comparative and organisational framework. It is already clear that this is a very diversified and uncoordinated sector and the difficulties we find characterising it to a large extent reflects this heterogeneous nature. Nevertheless, there are some interesting and important questions that this sector raises for our understanding of not only the relationship between the state and vocational educational institutions in Japan and Korea but this same relationship in any industrially-advanced democracy. Therefore, western, and more specifically UK and other OECD countries' perspectives, were used as basis for comparison when analysing the specific features of the Japanese and South Korean systems.

2. WESTERN VIEWS OF JAPANESE AND KOREAN EDUCATION

From the beginning of the 1980s, when first the Japanese economy and then the economies of the other so-called Little Tigers (Singapore, Hong Kong, Korea and Taiwan) began to take off, western observers became interested in the social systems in those countries which might explain their economic growth. Education was an area on which they focused particular attention and, by the late 1980s, it was almost expected that Japan and Korea would be the first place that any new Minister of Education in the US, UK or several other European countries would visit in search of different ways of thinking about their own systems.

The main focus of western observers of Japanese and Korean education was on the primary and secondary levels. In part, this was because children at this stage could (and frequently were) shown to be doing much better in international tests of mathematics and science than their counterparts elsewhere (see Lynn, 1988: chapter 2; OECD/PISA, 2006). In part, it was because government investment in education at this level was, in absolute terms, considerably lower than in other OECD countries but with no obvious deleterious effects for the nation either economically or socially.²

The literature on the education systems of Japan and Korea, however, contained one very obvious gap. Virtually none of it referred to higher education. This was not because there was no higher education in these societies. Indeed, they all had well-developed systems and a much higher proportion of students went on to post-compulsory and tertiary education in both countries than in European societies; some Japanese and Korean Universities for example could—and sometimes did—trace their histories back many centuries and, in the early

² In the late 1980s, total government expenditure as a percentage of gross national product (GNP) was a quarter in Japan—and a half in the other newly-industrialising countries (NICs)—that of Western European societies; but of this expenditure about three times as much in Japan—and twice as much in the other NICs—was spent proportionally on education (Cummings, 1997: 280–2).

1980s, proportionally at least twice as many young adults in the relevant age group went on to university in Japan (which at that time numbered over 500 four-year and the same number of two-year institutions) than in the UK (where there were only 44 universities and a similar number of polytechnics).³

For various reasons, however, higher education institutions have been regarded as largely irrelevant to the so-called 'economic miracles' of Japan and Korea. Some observers (Reischauer, 1983; Cutts, 1997; Hall, 1998) indeed, have argued the opposite—that their economic growth was achieved despite their institutions of higher education. In both Japan and Korea, especially during the first two years of four-year courses, and particularly in non-science subjects, there was a sense that university was a kind of moratorium between the horrendous rigour of school 'examination hell' which preceded it and the routine life of the company employee which followed it. In both countries, many students placed more stress on their social life than their academic activities; there was an unspoken rule that, by accepting students, an institution had a duty to graduate them.

In contrast to the benign neglect of higher education institutions and formal vocational training institutions, the extensive role of employers in the skills formation of its workers was something that Western observers highlighted (Dore & Sako, 1998). Training was something for which enlightened employers took responsibilities: workers were recruited for life, and trained on the job, through employment practices such as job rotations or in-house training.

Western observers appear to have been less focused on the question of skills formation in Korea beyond applauding its general emphasis on human resource development. This is interesting particularly because the Korean government had taken a very proactive role in strengthening vocational education systems, certainly in comparison with Japan, and possibly also compared with other international peers. The World Bank, which supported much of Korea's priority education initiatives, provided a positive evaluation of Korea's efforts in upgrading the quality of vocational education institutions, first at the senior secondary level and then at the junior college level (World Bank, 1985). Nonetheless, such reflections were taking place in the 1980s when the World Bank was increasingly pessimistic about the effectiveness of its investment in publicly-supported training institutions, particularly those based on manpower planning models (World Bank, 1991). Perhaps because of this, the 'Korean model' of formal vocational education and training did not become as well established internationally as it could have been.

If there has been the feeling among western observers that there is little to be learnt from the higher education systems of East Asia, this stands in stark contrast, it would seem, to the interest East Asian policy-makers have expressed, historically, in western models (see Altbach, 1989, for an overview of western influence on Asian higher education). In Japan, the Imperial University Ordinance of 1886 that defined the purpose of the modern university system was clearly based on the German and other western models of higher education (Bertholomew, 1989; Beauchamp and Rubinger, 1989: 138), which was transferred to Korea during the colonial period (1910–1945) (Kim, 2001), and the education system in both Japan and Korea was reorganised under US influence following the second world war and political independence in 1945 (Fujimura-Fanselow, 1997: 141; Kim, 2001; Kim, 2007). One critical change made under the occupation government, which was since been much criticised by the Japanese (Schoppa, 1991), was for vocational colleges to become integrated into universities. Missionary influence (particularly from the US) was crucial in the establishment of the modern Korean university system (Kim, 2000: 21–4; Lee, 1997: 311–14). Moreover, not only have Japanese and Korean higher education systems historically drawn heavily—directly or indirectly—on models from the west in their establishment but, as we shall see, they continue to do so in reforming their current systems (Eades, Goodman and Hata, 2005; Kim, 2007).

It is interesting to note that in the case of both Japan and Korea, vocational training institutions were largely home-grown. In Japan, *senmongakko* emerged mainly as private schools that were largely unrecognized as a legitimate part of post-secondary education. In contrast, Korea developed its own system of junior colleges,

³ According to Nagai (1971: 3), already by the late 1960s, only the US, USSR and India had more students than Japan (in absolute terms) going to universities.

which are arguably similar in function to community colleges in the US, but fundamentally different in that a large bulk of them are private institutions.

Two very different vocational higher education systems subsequently emerged in Japan and Korea, playing complementary roles to the rest of higher education. As will become clear, one of the most significant differences between the two systems lies in the role of the government.

This paper focuses on describing the context in which and manner through which these institutions developed. To do so, we will first describe and contrast the two higher education systems and their recent development. Second, we will describe the emergence of vocational higher education institutions in the two countries. Third, we will discuss what these institutions do today as an attempt to clarify their roles.

3. COMPARING JAPANESE AND KOREAN HIGHER EDUCATION

The most common reason that researchers in the past have given for including Japan and Korea within a single project is the belief that they share certain cultural traits. There are also certain economic and political points of overlap between these two societies. In terms of their educational systems, these countries share certain common features as outlined best perhaps by Cummings (1997: 281-6). They share a tendency towards a strong but lean state that takes direct responsibility for the system; a belief that western knowledge can be twinned with eastern values of respect for the state, community, family and authority more generally; and an emphasis on primary education. Beyond the primary level, the state concentrates its resources on national priorities (which it will heavily subsidise) but otherwise it will allow the private sector (which in Japan and Korea provides around 75 per cent of tertiary education) to fill the gap between demand and supply. As a result of this emphasis on primary education, the proportion of state educational spending on higher education in Japan and Korea is around one-third of the OECD average (Postiglione, 1997: xvii).⁴

3.1 Expansion and growth

The most conspicuous feature of both Japanese and Korean tertiary education systems is the speed with which they have grown. Both countries have 'mass higher education' systems in Martin Trow's (1973) definition of the phrase. Korea's enrolment rate in higher education is now one of the highest in the world. Currently, 97 per cent of eighteen-year-olds graduate from high schools, and 81.3 per cent of them advance to higher education institutions.⁵ In Japan, from just 2.9 per cent in 1947, already by 1980, 38 per cent of all 18-year-olds were entering junior colleges or four-year universities and, by 1999, in total, over 60 per cent of the 18-22 aged population were in some form of higher education.

In Korea, between 1945 and 2000, Korean higher education expanded from 19 schools and 7,819 students to 352 schools and 3,383,293 students (Republic of Korea. National Statistical Office, 2006). Korea's enrolment rate in higher education is one of the highest in the world now. Currently, more than 95 per cent of eighteen-year-olds graduate from high schools, and 97 per cent of 25- to 34-year-olds complete an upper-secondary education, which places Korea at the top of the chart among OECD countries. Korea is the country with the

⁴ The public spending on higher education as a proportion of GDP in 1998 was 0.4 per cent in Japan, 1.3 per cent in United States, 1.1 per cent in the UK and 1.1 per cent in Germany (Akao, et. al. 2002: 76).

⁵ The annual publication of comparisons in education systems produced by the OECD—the Organisation for Economic Co-operation and Development—reveals the extent of Korea's progress. Korea is now in first place in terms of the proportion of younger people who have completed an upper-secondary education—leading a small group of countries, including Norway and Japan, where more than 90 per cent of pupils reach this level. In terms of the proportion of population entering higher education, there has been a similar upwards leap by South Koreans.

highest number of science graduates per 100,000 employed 25- to 34-year-olds among OECD countries, both for males and females (OECD, 2008).

The increase in higher education participation rates reflects a number of different factors. On the supply side, there is a recognition that their youth constitutes their main resource and that national investment in young people is a priority. On the demand side, increasing national and personal wealth (related presumably also to shrinking family sizes) has created an enormous expansion in the desire for higher education as a means of investment in oneself and one's family. The rapid growth—and now the large size—of the system, combined with the economic crises in East Asia, has led to a major reassessment of the role of higher education in Japan and Korea. It is very interesting to observe the similarities in the responses of the two countries.

3.2 The relationship between the state and higher education institutions in Japan and Korea

In Japan, and by extension as a result of its colonial experience in Korea, the continental European model of the relationship between the state authorities and the tertiary education sector (largely copied from former Prussia) has predominated in state institutions where employees have been seen as civil servants and the government has kept tight control over curricula, admissions and funding. Even private institutions (which already by the late 1960s were providing around 75 per cent of all tertiary education) which have come under the Ministry of Education in these countries have found themselves forced to comply with this model to a large extent. While employees at such private institutions have not been public employees, they have still been forced to accept heavy control of their courses by their respective Ministries of Education intent on deciding such matters as enrolment quotas, admission procedures, the establishment of new institutions, academic courses and financial allocations (Amano, 1999; Kim, 2000: 67–74; Lee, 1997: 315). In the case of Japan, this government intervention could, from 1970 on, be justified to some extent by considerable government subsidies for private education (up to 30 per cent of their total income package in the mid-1980s, though now closer to 10 per cent [Yonezawa and Baba, 1998: 146]), but in Korea generally less than 2 per cent of the income of private universities has ever come from the State (Lee, 1997: 317).⁶ In both cases, however, regulation by the respective ministry has remained very tight.

This relationship between higher education institutions and their respective Ministries of Education—a relationship which has remained stable since the systems were established in the modern period—has been going through possibly its most radical reform process ever. Focusing first on the state-run institutions, these have been turned into independent, autonomous units which will run and have responsibility for themselves while continuing to receive state financial support for which they will be held fully accountable through a variety of quality control mechanisms. To a large degree it is accepted that these reforms are modelled on those which took place in the UK higher education sector in the 1980s under Margaret Thatcher.

What are the expected benefits, from the government's perspective, of such a reform process? Most immediately, it is expected to lead to considerable financial savings on the national budget. Governments in Japan and Korea, however, argue that the reforms are not only financial; they are also ideological. As Royama (1999: 22) puts it, what is being proposed in higher education in these countries is nothing less than a 'big bang' where market forces are expected to determine the future direction of both individual institutions and the sector as a whole. According to each government, the reforms are needed to give autonomy to institutions

⁶ In 2004, the Korean Government allocated 175 billion KRW (equivalent to approximately 97 million GBP) funding for *jeonmun daehack*, which is only one-tenth of the amount of funding allocated for the four-year university sector. Overall, the Korean Government's budget for higher educational institutions is only 0.4 per cent of the GNP, which is much lower than the OECD average of 1 per cent. The Korean Government's funding for higher education has been mainly allocated to national universities. Overall, this funding policy has left most private higher educational institutions seriously lacking financial resources. Kim and Lee (2006) emphasise the government needs to devise a mechanism in which private and public universities can increase fiscal capability. One possible solution would be to permit the institutions, especially *jeonmun daehack*, to engage in for-profit activities as long as the profits earned are circulated to the primary mission of the institution (Kim and Lee, 2006).

in order to allow them to become more creative in their research, diverse in their practices and attractive to students and employers.⁷ In short, they will need to compete to survive.

3.3 Pressure and conditions for the market liberalisation of higher education

Arimoto (2000: 98) lists eight key elements behind the 'third reforming stage' (the first stage being in the Meiji period, the second during the post-war occupation) of Japanese universities. These are: shift from elite to mass higher education; rapid growth of science and technology; drop in size of eighteen-year-old cohort; economic retrenchment; introduction of market principles; globalisation; change from a 'degree-democracy' society to a life-long learning society; deregulation of charting and strengthening of accrediting of universities; abolition of recruitment agreement between companies and universities. It would appear that while the reasons for reform are not exactly the same in both countries, there are clear similarities which relate to economic recession, changing patterns of demography and political developments.

(i) Economic recession

It should be no surprise that the slow-down in economic growth in Korea and the recession in Japan through the 1990s has led to irresistible pressure from companies for higher education reform. In both countries there has historically been a clear correlation between university attended and the level of job which someone can obtain. Entrance into a 'top' institution in a clear hierarchy of institutions was sufficient evidence of ability for recruitment for a top job in either the public or private sectors. Once recruited, employees could enjoy job security as well as on-the-job training, and expect to be promoted and remunerated on the basis of how long they had served the institution. This model, it would seem, has started to disintegrate under the pressure of the slow-down in economic growth. Companies now want to recruit people with specified skills and will promote as much on the basis of merit as loyalty (Takeuchi, 1997). Students, as a result, are becoming more selective of what and not just where they study (Yano, 1997) and more demanding, as Eades (2001) points out, about what they get for their money. As Kitamura (1997: 148) puts it, Japanese tertiary education is seeing the development of a buyer's market where 'students will be "courted customers" rather than "suplicants" for admission'. Institutions of higher education are under increasing pressure to respond to these new demands (Arimoto, 1997: 205).

In Korea, there are currently far more university graduates than the local labour market can accommodate. The number of unemployed young people—both without and with university degrees—has increased, estimated at about 760,000 as of 2003 (Yonhap News, 28 November 2003). The increasing unemployment can be understood in line with the rapid expansion of higher education, but it is more directly related to the changing conditions of recruitment after the 1997–98 economic crisis and the subsequent economic restructuring commanded by IMF on neo-liberal global market principles. The further increase in the rate of enrolment in higher education in Korea at present can be understood as a way to avoid becoming unemployed. The education-based class system is notable in South Korea where white-collar-educated managers treat people without a college education, including skilled workers with vocational or technical training as 'second-class citizens' (Kim, 2007). However, despite the rising number of the unemployed among higher education graduates, there is a shortage of quality manpower in production and in other engineering fields in Korea.

(ii) Demographic pressures

In Japan and Korea, the biggest pressures—which are literally forcing institutions to accede to the new ideologies promoted by the government—are demographic. The Japanese case is the more dramatic, though the Korean case (see Weidman and Park, 2000: 2) is not far behind. The population of 18-year-olds (the age when the vast majority apply for university) in Japan peaked at 2.05 million in 1992 and has declined ever since to

⁷ A good example of the success of unregulated sectors in the market can be seen in the growth of new schools established by corporations (*kabushiki kaisha*) which offer CPA courses specifically designed to enable those who take them to work in the US, as accounting and business courses taken at registered *senmongakko* are not recognised by US states as qualification for sitting US CPA exams (see Kawahito, 2004).

1.51 million in 2000 and an estimated 1.2 million in 2010—a drop of 26 per cent in 8 years or 41 per cent in 18 years (Doyon, 2001: 445; Arimoto, 1997: 205). While some of this drop in the absolute number of 18 year old in the population was compensated for by an increasing proportion going on to higher education, the evidence suggests that by 2000 the proportion likely to seek tertiary education had begun to plateau. Between 2007 and 2009, according to differing estimates (Doyon, 2001: 445; Royama, 1999: 22), the places available in higher education institutions should be the same as the number of applicants.

Korea's birth rate fell from 1.19 to 1.16 in 2004, which is the lowest level on record, and among the world's lowest.⁸ Given the demographic pressures, it is now anticipated that 30 per cent of primary schools will disappear in 10 years. As a result of the decrease in birth rate, by 2020 there will be 360,000 less than the current number of the age cohort enrolling in higher education institutions in Korea; and accordingly, about 100 higher education institutions are expected to close down in Korea by then.

Overall, higher education supply in Korea has started exceeding demand. This is especially visible among the higher education institutions located in provinces outside the Seoul metropolitan. Higher education institutions are already fighting over a smaller pool of applicants in Korea, and the results have been predictable. There are currently over 200 four-year universities and about 160 junior colleges in Korea; however, they were short by a total of 85,000 students in 2003, recording the lowest rate of admissions ever.⁹ The root of the problem is the explosive growth in the number of colleges and their relatively high entrance quotas, compared to the number of high school graduates per year.

This does not mean, of course, as some in both Japan and Korea have intimated (see Obara, 1998), that competition to get into university will disappear altogether; this will remain intense in the case of those still seeking to gain entry into the best institutions. It does mean, however, that many of the lower-level universities are going to find it very difficult to survive and indeed there are already signs of the effects of this in Japan. Survival will depend on their ability to find new markets.

(iii) Political developments

Some of the political developments in the region have doubtless made it easier for Anglo-Saxon market liberalist policies to be applied than would have been the case only a decade earlier. In Japan, this trend can be seen starting back in the 1980s, but Korea at that time was under the control of a military dictatorship which was loathe to give too much autonomy to any of its institutions and perhaps particularly not to its universities in societies where students and professors historically had always enjoyed more moral authority than the military. In both Japan and Korea, deregulation has become a buzzword for re-stimulating their respective economies.¹⁰

⁸ The country's birth rate of 1.16 is much lower than the average 1.6 to 1.7 for OECD member countries and significantly lower than the 2.1 needed to maintain the current population level in this country. Korea's total fertility rate (TFR) was lower than the 1.288 of Japan, and far lower than the United States, whose rate stood at 2.04. (The Korea Herald, August 25, 2005)

⁹ In 2003, about 10 universities and 20 *jeonmun daehack* could not even fill half of their entrance quotas—the minimum number of students needed to keep a school afloat—and about seven universities were on the verge of closing down, with only 30 percent of their entrance quotas having been reached.

¹⁰ In Japan, there was a University Deregulation Law in 1991, widely supported in the context of a general climate of deregulation (*kisei kanwa*) under the Koizumi cabinet, which has led education ministry officials to believe they should not intervene in the case of new universities being established as long as they meet the minimum standards required. In Korea, the 1997 higher education reforms specifically reduced government regulations and made it easier to establish new universities (Kim and Kim, 2004: 2). In both cases, the education ministries recognise that the absolute number of college students will shrink over the next two decades, leading to some higher education institutions either being closed or merged. Overall, the contemporary post-developmental states in East Asia are vulnerable and permeable to neo-liberal global market forces.

4. THE GROWING STATUS OF VOCATIONAL HIGHER EDUCATION IN JAPAN

It is a strange coincidence (but nothing more than a coincidence) that the bursting of the Japanese economic bubble coincided almost exactly with the peak of the number of eighteen-year-olds (the group who have provided well over 90 per cent of all university entrants) in the Japanese population. This generation, the second post-war baby boom, peaked at 2,050,000 in 1992 and then began a steady decline (31.2 per cent) in numbers to around 1,410,000 in 2004. Due to the rapidly decreasing birth-rate in Japan since the late 1980s, there is no third baby boom on the horizon and the number of eighteen-year-olds will continue to decline to 1,183,000 in 2012 (an overall decrease of 42.3 per cent over twenty years). The full effect of this demographic shift has not yet been felt by the higher education institutions because between 1992 to 2002—despite the drop in the total number of those leaving senior high school (and in Japan only about 4 per cent of the age group do not complete senior high school, even though it is non-compulsory education)—the proportion going to universities and junior colleges (as the percentage of 18 year olds) actually increased from around 37 per cent in 1992 to just under 49 per cent in 2002, and 55.3 per cent in 2008.¹¹

The major consequence of these developments has been hyper-competition between institutions. Many of Japan's two-year junior colleges (*tanki daigaku*) faced dwindling applications and converted into four-year institutions, escalating the competition among universities. In 1992, with 541 institutions (88 per cent of them private) *tanki daigaku* constituted over 44 per cent of all of Japan's higher education institutions and catered for nearly 23 per cent of all higher education students (around 92 per cent of their in-take being female); by 2007 they catered for only 9.6 per cent of all higher education students, as more and more women entered higher status four-year institutions.¹² Against this background of hypercompetition and economic pessimism, *senmongakko*, Japan's two-year post-secondary vocational schools, have been exhibiting surprising resilience, at least until about 2005, without much aid from the state. While the number of high school students entering junior colleges steadily declined from its peak of 250,000 in 1991–3 to 77,000 in 2008, *senmongakko* managed to increase its share of entrants as percentage of the age cohort from 20 per cent in 1992 to 28 per cent in 2005, though the actual size of new students dropped from about 360,000 in 1992–3 to 340,000 in 2003–4. Since 2005, however, *senmongakko* have been losing their ground quickly, with the number dropping sharply to 255,000 in 2008, with its share of new students among the 18-year-olds at the all-time low of 20.6 per cent in 2008.

As Yamamoto (1997: 295) explains it, in the pre-war period Japanese higher education operated on a 'double-track' system in which the educational track to universities was kept separate from the track to vocational schools, and, while the private non-vocational higher education system was left to fend for itself financially, vocational education received very high levels of state subsidy.¹³ Following the National Subsidy for Vocational

¹¹ Indeed, during the period 1992–2004, the number of four-year universities actually increased by an even faster rate than the decrease in the eighteen-year-old population. In 1992, there were 98 national, 41 public and 384 private four-year universities in Japan; in April 2004, there were 88 national, 77 public and 545 private four-year institutions, an overall increase of 31.9 per cent.

¹² It is interesting to note, in this context, that junior colleges (*tanki daigaku*) were initially established only on a provisional basis in 1950—because not all institutions which wanted to upgrade to being universities in the post-war system were considered to be of high enough a standard—and they were only accepted as a permanent feature of the education system in 1965 (Teichler, 1997: 278). Not long after, in 1969, as Cummings (1976: 69) recounts, several junior colleges went bankrupt as the level of debt in all private institutions increased severely, precipitating the student revolts which marked universities in Japan during the early 1970s. There is no doubt, therefore, that the junior college sector in Japan, which caters almost exclusively to female students, has provided a useful 'buffer zone' during the development of higher education in the post-war period.

¹³ Chapters in Toyoda's (1987) edited volume list the subsidies which were given to set up and maintain schools in woodwork, lacquerware, ceramics, dyeing and weaving, bamboo working, commerce, agriculture and forestry.

Education Act in 1920, vocational continuation schools subsidies became very substantial (Sato, 1987: 64). According to Okada (2005: 35), these pre-war *senmongakko* could not have university status because 'they specialised in only one discipline while a university was defined as an institution teaching numerous disciplines'.

In the immediate post-war period, however, many of these *senmongakko* were given university status, so it was somewhat ironic that it was the development of the so-called 'single-track' system at that time which led to a clear hierarchy developing in which vocational education had lower status than academic education. As both secondary and then tertiary education moved into the mass era in the post-war period, both the status of and the state subsidy for vocational education dramatically reduced and in the vacuum there emerged a large number of unregulated and non-state supported institutions known as *kakushu gakko* ('miscellaneous schools'). It was only with the revision to the education law in 1975 that *kakushu gakko* were allowed to apply for status as *senshu gakko* and that many of those which obtained that status were designated as *senmongakko*, a term for educational institutions which had not been seen for thirty years.

Vocational education in Japan has been characterized by a number of features in the post-war period. Primary among these has been the fact that it has been extremely uncoordinated. As Dore and Sako (1998: 167) succinctly put it, 'In whatever other respect Japan might be a model to us all, national policy co-ordination in the field of vocational education and training is not its strong point'.

In Japan today, at high school level around 25 per cent of 15-18 year olds attend vocationally-oriented schools (down from 40 per cent in the 1950s and 1960s) where a minimum of 30 per cent and on average around 50 per cent of courses are of a non-vocational type in such as maths, Japanese and a foreign language. These schools, however, are rarely attended by the top 10 per cent of students and more often than not pick up those towards the bottom end of the educational achievement hierarchy, as there remains a bias towards academic schooling. This is seen most clearly in the relatively low proportion of entrants to these institutions who graduate from them at the end of three years.¹⁴ Indeed, as the Japanese economy expanded, apparently inexorably, in the post-war period, the status of vocational education seems to have dipped.

Of course, attendance at a vocational high school does not preclude taking vocationally-oriented courses at university, and indeed, depending on one's definition, a substantial proportion of students in Japan do courses such as science (3.5 per cent) and engineering (19.5 per cent), which might be considered vocational in nature. As discussed above, the university sector in Japan was established in the first instance to provide support for economic development rather than individual growth. However, even in science and engineering courses, there remains today a much greater emphasis on general education and one-way lectures than on practical work and placements compared to courses in most North American or European universities. Writing in the 1980s (when the so-called Japanese model of employment was probably at its zenith), Kinmonth (1986: 411) pointed out this was largely because companies which hired graduates from universities even in sciences were less interested in what they did there than where they have been; around 40 per cent within 2-3 years in any case would be following a specialisation in the company quite different from what they had studied in university.

At the end of the 1980s, as the absolute number of those entering higher education in Japan was about to hit its peak, Amano (1989) made a number of interesting comparisons between the vocationally-oriented *senmongakko* and two-year junior colleges in Japan. The former concentrated on the professions and semi-professions, the latter on domestic skills; the former were relatively gender-balanced, the latter female dominated; the former were concentrated in cities, the latter were scattered and decentralized locally-based

¹⁴ In the last few years, there have been some calls to recognise the importance of vocational high schools and for their status to be raised. This is particularly in the light of the perceived relevance of their courses for securing employment in the current economic recession (see, for example, Trelfa, 1994). Research by Honda (2005) indeed even suggests that graduates from vocational high school have better interpersonal skills and lower levels of anxiety about their futures than those from supposedly superior high schools and uses this to argue for the revitalisation of the vocational high school system and for more vocationally-relevant education in academic high schools.

institutions throughout Japan (which was in the 1990s to become one of their biggest problems because they could neither register students nor guarantee them employment); the former were relatively free from government intervention, the latter were highly regulated, even though in both cases over 90 per cent of institutions were private and almost all of them are for full-time students.

At the same period, Abe (1989: 76) made a number of interesting comparisons between *senmongakko* and four-year universities. The former indeed, he felt, had several advantages for reforming themselves in the next decade over the latter: they were required by the state to spend less on meeting the regulations of the central government; they were not prevented from setting up new campuses in metropolises as universities were at the time; their founders and heads were not faced with having to deal with conservative professors' councils when they tried to reform but had a fairly free hand (see Hatakenaka, 2005 for more on this); they could matriculate and graduate students into the employment market much faster.

The above background is needed to understand the significance of the fact that, almost unreported,¹⁵ the proportion of higher education students going to *senmongakko* had nearly doubled over the fifteen years up to the early 2000s to 20 per cent of all school leavers and then declined sharply to 15 per cent in 2008.¹⁶ It is a curious fact that these students have traditionally been excluded from the figures of those attending higher education in Japan. The omission is all the more surprising given that, in similarly vocationally-oriented *kotosenmongakko*, which is a tiny segment offering 5-year education for middle high-school graduates, the last 2 years have always been recognized as being part of higher education. Their courses are full-time and their campuses are often impossible to distinguish from colleges. Many *senmongakko* have a long history (some can trace their foundation to the nineteenth century); the largest have over 2000 students. They are almost all private and charge fees which are towards the top end of the scale for private universities.¹⁷ The only difference is that their courses are vocationally-oriented and offer qualifications that are recognised by employers in their own right. If they are included in the figures, then the total proportion of students in post-secondary education in Japan is much closer to 70 per cent than the figure of 50 per cent that is normally given.

By the 1990s, *senmongakko* had come to be widely accepted as established, post-secondary, vocational training institutions within the educational system. This has led to the gradual formalization of *senmongakko*, in such a way that they effectively approach the academic schools in character.

In explaining how the status of *senmongakko* has risen in Japan since the late 1980s, Han (1996), a Korean scholar who conducted research based in Japan and one of the very few academics to have looked at the issue, emphasizes the following contextual factors:

¹⁵ Dore and Sako (1998: 171) comment on the complete absence of reports on vocational education (*shokugyo kyoiku*) in a database search of a major Nagoya newspaper in 1997. The same search returned 1444 articles with the word 'university' (*daigaku*) in them.

¹⁶ Regional variations in these figures are huge: almost twice as many school leavers proportionally go on to *senmongakko* in Niigata (29.1 per cent) as in Tokyo (15.3 per cent). At the same time, almost five times as many school leavers proportionally go directly into paid jobs in Miyazaki (31.3 per cent) as in Tokyo (6.8 per cent) and only 60 per cent as many go on to university in Okinawa (31 per cent) as in Tokyo (53.5 per cent).

¹⁷ Due to the basic economic rules of inelastic demand, the lower the level of an institution in the educational hierarchy, the higher the fees it charges, as students have less options to draw from. This rule would also appear to have applied to *senmongakko* as a set of institutions at the bottom of the higher education hierarchy. Overall, the burden of higher education on individual families has risen substantially in the past three decades: in 1970, the average fee at a national university was less than 2 per cent of the disposable income of a modal family, by 1990 it was 5 per cent; in the case of private universities, the average costs rose from 6 per cent to 10 per cent over the same period. These costs were clearly much higher in the case of families sending their children to the lower level, more expensive private universities, particularly given that these families were on average earning lower incomes since wealthier families dominated entrance to state and high-level universities (in part through investment in high-quality cram education in order to gain entrance).

Mass higher education

- The universalization of high school education and the expansion of average school years has lowered the status of high-school stage vocational training and increased demand for post-secondary vocational training;
- Increasing numbers of private universities are available to absorb popular demands for higher education which has made it harder for university graduates to find white-collar jobs, while vocational qualifications from *senmongakko* are seen as leading to more stable employment;

Shifting employment market towards service-oriented businesses and trends towards 'professionalization'

- The changing market demands require new types of vocational training to adjust the workforce to accommodate service-oriented businesses. In addition, there are increasing demands for new skills, such as information technology, which require a trained workforce;

Changes in attitudes towards work among youth

- Importance of balancing private life and work;
- Demise of life-time employment; increasing professional jobs that cut across companies and greater identification with the profession rather than the company.

5. JAPANESE AND KOREAN VOCATIONAL HIGHER EDUCATION INSTITUTIONS TODAY

5.1 Japan: *senmongakko*

So what are *senmongakko*? It is always difficult to give exact equivalents of educational institutions when comparing systems in different countries. The most common generic term, following revision of the basic Education Law in 1975, for specialist non-university post-secondary vocational schools in Japan is *senshugakko*. These are institutions which are allowed to offer three types of programmes: (a) *ippan katei* (general programme), which is open to anyone without any specific requirement on prior education; (b) *senmon katei* (literally specialist programme), which is open to high school leavers as well as those with higher educational qualifications¹⁸; and (c) *koto katei* (high school programme which is designed for middle school graduates), a programme which was set up in the immediate post-war period and has shrunk almost to the point of invisibility. Of the roughly 3200 *senshu gakko*, just under 3000 (i.e. almost 92 per cent) offer *senmon katei* courses and these institutions are more generally known as *senmongakko*.¹⁹ According to Han (1996), the curriculum of *senmongakko* are characterized by: (a) the unregulated nature of its content; (b) a strong focus

¹⁸ As Amano (1989) points out, as secondary education became the norm in the 1970s, so vocational education became more closely associated not with those who had completed compulsory education (up to age 15) but those who had completed senior high school (at age 18). The development of the new category of institutions called *senmongakko* was meant to recognise this change.

¹⁹ In 2005, there were 791,540 students registered in *senshu gakko*; 48,987 on the *koto katei* (6 per cent); 45,725 on the *ippan katei* (5.7 per cent) and 696,828 on the *senmon katei* (88 per cent). In the previous ten years, the numbers enrolling on the *koto katei* programme had more than halved, the numbers on the *ippan katei* had decreased by 17 per cent, while the numbers enrolling in *senmongakko* programmes had remained very steady. Dore and Sako (1998: 67) point out that the system is actually much more complicated yet in that *senshugakko* refer only to those post-secondary non-university vocational education and training institutions which are recognised by the Ministry of Education. There are also institutions accredited by the Ministry of Labour and the Ministry of Health which are not included due to reasons of Ministerial sectionalism. These however have been declining in number in recent years and hence do not need to form a major part of this study.

on employability and practical skills as needed by the work place; and (c) an emphasis on preparing for vocational qualifications.

However, these very characteristics point to various dilemmas internal to *senmongakko*. The privately-run character of the schools can mean that financial stability can be the overriding concern, with high student fees levied. There is tension between focusing on developing 'specialists' and the need for general education as a base for life-long learning. The lack of selectivity in the *senmongakko* can mean that they are admitting students who do not enjoy studying or with lower academic ability. Hence, it may be difficult to produce highly-skilled specialists, thus reproducing these institutions' low social status.

As we have seen above, there had been a division of functions between universities/junior colleges that teach theories and principles and *senshu gakko/senmongakko* which teach market-oriented skills.²⁰ Many qualifications that in the UK or the US would be earned at universities—in the UK at the so-called 'new universities' which used to be called polytechnics—in Japan have been earned in *senmongakko*. Moreover, unlike the UK and the US where the two sectors have become increasingly intertwined, rigid Japanese regulation has tended to keep them apart so that it has been very difficult for *senmongakko* to become or merge with universities or for universities to offer credit courses to students from *senmongakko*.

In 1999, largely under pressure from private universities and colleges concerned about falling enrolments, a relaxation in the educational law finally allowed those who had achieved the diploma of *senmonshi* from a *senmongakko* (which had been established as a new qualification for *senmongakko* in 1994 for programmes requiring at least two years equivalent instruction) to transfer to a junior college or university. This also meant, of course, that *senmongakko* were no longer dead-end courses but could be seen as part of a four-year university degree. In each of the first two years following this relaxation, however, less than 1000 students took up the opportunity; in 2005 the number was still only around 2,000. In 2005, a new diploma of *kodosenmonshi* was established as a new higher-level qualification for programmes requiring at least 4 years equivalent instruction.

On the other hand, not only are many students entering *senmongakko* on completion of their university or junior college degrees, but over 25,000 students a year are dropping out of university (forfeiting their entrance and annual fees) in order to re-enrol in *senmongakko*—a process known as 'reverse transfers' in North America. This is not a trivial accomplishment in a country that is known for hypercompetition for university entrance.²¹ Staff who teach in *senmongakko* enjoy increasingly high status and are often headhunted to come and work in universities; many students attend *senmongakko* at the same time as they attend regular university (so-called 'double-schoolers').²² *Senmongakko*, which in the 1970s were dominated by female students (80 per cent), are

²⁰ A good example would be in the teaching in English. In university settings, English is mainly taught as a literary exercise in reading and writing; many classes focus on the literary specialisations of the professors, such as Shakespeare or the Romantic poets, and there is little emphasis, or testing, on oral communication skills. Teachers of English at *senmongakko* have highly developed oral skills and those needing a qualification in communicative English (the so-called Eiken qualification), for example in order to pilot, rather enrol at a *senmongakko* than at a university.

²¹ It would appear that pre-2000 no statistics were kept nationally on the proportion of those entering *senmongakko* who had graduated from university; by 2005, there were around 20,000 such new entrants and around 6400 who had graduated from two-year colleges. There is some data on the wage premium obtained from attending *senmongakko* compared to entering the work force straight from senior high school (the premium is around 10 per cent) but as yet none, as far as we are aware, on the comparative premiums of graduating from *senmongakko* compared to graduation from two or four-year colleges.

²² Kinmonth (2005: 125) cites a 1999 survey which suggests that 26 per cent of students were double-schooling. Abe (1989: 76) mentions this phenomenon beginning to emerge during the bubble economy in the 1980s, its appearance should therefore not be directly linked to the economic problems of the subsequent decade. Abe (1989: 77) saw *senmongakko* filling a very particular niche in the higher education system and did not foresee universities trying to compete directly with them, suggesting that the relationship was similar between community colleges and universities in the US. He does suggest, however, that the institutions could be complementary, which is why certain private university operators began to set up *senmongakko* alongside their campuses.

now roughly 50:50 in their gender balance;²³ and while the success rate in finding a job has dropped among male university graduates from around 80 per cent to 60 per cent during the 1990s, the rate for those from *senmongakko* has remained consistently at around 80 per cent.²⁴

Senmongakko are divided into eight fields of specialisation: medical, such as nursing (32 per cent); culture and languages, including interpreting (23 per cent); industrial, including construction and mechanics (13 per cent); services affected by hygiene regulations, including cooking (12 per cent); commerce, including accounting (10 per cent); education and social welfare, including child care and care of the elderly (6 per cent); fashion and domestic science (4 per cent) and agriculture (0.5 per cent). In contrast to the early days, when subjects such as dressmaking and home economics were popular, today, medically-related subjects constitute the fastest growing area, and new fields are constantly emerging, such as the study of animation/manga or social work for the elderly, reflecting the changing societal and industrial needs of Japan.

The recent emergence of *senmongakko* has not been without turmoil. *Senmongakko* leaders recollect how the 1990s were an era of hyper competition when many of them went out of business—while the government paid little attention to what was happening to fee-paying students in these schools. Nor are they uniform in their content or quality. They are, as we have seen, the products of unregulated markets or what Dore and Sako (1998: 91) describe as 'an almost pure market sector', and there has always been an element of 'scrap and build' in the way they have been established and responded to market demand.

The very recent decline in the numbers attending *senmongakko* is likely a reflection of increasing vocationalization in the courses offered by universities themselves. There has been a steady increase in university-level courses in key vocational areas such as health and social services (most notably in subjects such as nursing and physiotherapy).²⁵ Making university education relevant to socio-economic needs has been one of the key drivers in the on-going reforms in higher education, which has been accelerated since the big bang governance reforms of national and public universities in 2004. The introduction of professional graduate schools (*senmonshoku daigakuin*) in research-oriented universities since 2003 has perhaps also been an important signal about the future role of universities in professional education, even though the main developments to date have been in fields where there has been little duplication with *senmongakko*, such as law and education.

5.2 Korea: *jeonmun daehack*

As we have seen, Korea has a very similar higher education system to Japan, characterized by a very large private sector and a strong social demand for university education, which has made university entrance, especially at the top end of the scale, extremely competitive. However, the Korean 'tradition' of using higher education for pragmatic, vocationally-oriented purposes, which Kim (2001) describes, can be attributed to the legacy of Japanese colonial higher education especially in *jeonmun daehack*.²⁶

²³ There are, of course, big gender differences by programme in *senmongakko*: 72 per cent of those in education and social welfare courses are female, 84 per cent in domestic science. (For an interesting article on gender stratification in Japanese private higher education institutions, see Nagasawa, 2005).

²⁴ Some *senmongakko* guarantee employment to all those who complete their courses.

²⁵ For an interesting analysis of an emerging role of university education in nursing, see Yoshimoto and Tateishi 2008.

²⁶ The Japanese colonial educational policy in Korea was designed to turn Koreans into obedient colonial subjects and to teach them limited technical skills. A state university modelled on Tokyo Imperial University was established in Seoul in 1926, but there was an enrolment quota for Koreans which was limited to only one-third of the total admissions, while two-thirds were Japanese expatriates. During the colonial period (1910–1945), the Japanese colonial government promoted vocational and technical education in Korea as a part of the colonial state's modernisation project. The Japanese colonial government established two Industrial Schools—one in Seoul and the other in Pyongyang. The standard of the Industrial Schools was between primary and higher education, and the stress was on practical skills. Apart from those of college grade, there were 140 vocational and industrial schools, mostly elementary industrial schools, with the others being concerned with agriculture, commerce and fishing.

A type of higher education institutions, called 'Junior Colleges' in Korea in English and *jeonmun daehack* in Korean, offer two- or three-year post-secondary vocational education programmes. They are a direct outgrowth of the increasing demand for technical manpower due to rapid industrialization in Korea. *Jeonmun daehack* came into being as higher educational institutions in 1979 after the merger between *jeonmun hakkyo* and two- or three-year professional high schools. Their institutional status and educational functions appear to lie somewhere between Japanese *senmongakko* and junior colleges (*tanki daigaku*). The purpose of *jeonmun daehack* education is to produce middle-level technicians equipped with a solid base in both theory and practical skills.

Specialised courses offered at *jeonmun daehack* are grouped into engineering, agricultural, fishery, nursing, health, home economics, social work, arts and athletics and so on, with two- or three-year programmes, depending on the courses. Nine majors including nursing, kindergarten teacher training, mechanics courses, and fisheries take three years and the other majors require two years of study (Korean Culture and Information Service, 2009). Some *jeonmun daehack* have been successful in diversifying pragmatic and vocationally-oriented courses—such as ICT, computer software, internet business, industrial design (e.g. food design, jewellery design), tourism and hotel management, social service administration, architecture/industrial engineering, fire protection, performing arts, and well-being and health, pet beauty and health, cosmetic science, physiotherapy and dental hygiene—to increase the employability and career opportunities of their graduates.²⁷

To achieve their practical and pragmatic educational goals, *jeonmun daehack* develop and operate practical on-site training curriculum through "school-industry cooperative" programmes and "vocational specialty" training plans and job sheets. Specialty is stressed as part of preparations for the National Certification Examination. In this regard, *jeonmun daehack* education is highly valued in Korea. It offers student internships, industry field training for faculty members, education for mid-career industry employees, joint college/industry research programmes and exchanges of techniques and information, operation of industry/college cooperation committees, and curriculum development at the request of industries.

The hierarchical structure in the Korean higher education market has been recognized for a long time and the institutions in the top two deciles are completely dominated by four-year universities.²⁸ However, in the middle range, *jeonmun daehack*, most of which are located in the Seoul metropolitan area, are quite competitive. This reflects the popular notion that some of the two-year *jeonmun daehack* produce marketable diplomas that are well received in the labour market, such as the nursing and information technology fields, even though the labour market is flooded with college graduates and the college premium has decreased substantially. The employment rate of *jeonmun daehack* graduates in 2004 was 18.1–21.5 per cent higher than that of four-year university graduates (Korean Council for College Education, 2005:41).

The total number of higher educational institutions in Korea is 329, among which 158 are *jeonmun daehack* (of which 6 are national, 9 public, and 143 private) and 156 four-year universities (26 national/public, 130 private), 11 universities of education (11 national/public), 18 universities of industry/technology (8 national/public, 10 private), 1 open university (public) as of 2004 (Government of Korean Republic, 2009). Currently, 45 of 80 per cent of high school graduates enrol in *jeonmun daehack* in Korea.

The number of higher educational institutions has not increased much since 1985, but the number of courses offered in all types of higher education institutions has increased dramatically. For instance, the number of courses offered at *jeonmun daehack* in 1985 was 1076 and 5847 in 2004 in total. This increase reflects the changing economic structure and labour-market demands in Korea (The Korean Yearbook of Educational Statistics, 2004).

²⁷ Many of these most popular and typical *jeonmun daehack* courses, however, started to be offered at four-year universities as well in order to blur the traditional sector division in higher education in Korea (*Chosun Ilbo*, 26 May 2006).

²⁸ The only exception is the two-year Agricultural Cooperative College, which has no tuition (Kim and Lee, 2006).

6. CONCLUSIONS AND ISSUES FOR FURTHER RESEARCH

Japan and Korea represent two very different ways in which vocational education developed at the post-secondary level, both in a societal context in which academic education was clearly preferable. In Japan, vocational education was principally undertaken by *senmongakko*, which were hardly recognised to be part of the higher education sector until very recently. Market forces rather than government regulations dominated their behaviour and leading *senmongakko* are known for their responsiveness to changing market needs—both of employers and students.

In Korea, vocational higher education has always been part and parcel of the higher education sector where *jeonmun daehack* have traditionally provided vocationally-oriented courses at undergraduate levels to award associate degrees. They have been subject to quality-related regulations by the government, for instance, in terms of the staff-student ratios and staff qualifications as well as physical facilities.

And yet, there are also key similarities. First, both sectors are dominated by private school authorities, which are supposedly not-for-profit, but seem to operate in a manner similar to for-profit colleges in other countries. Second, they have been regarded as poorer options in comparison with universities and have traditionally had difficulties in attracting good students. Third, they are today facing much more intensive competition for survival, both domestically and globally.

The ongoing evolution of *senmongakko* in Japan is important in several aspects and provides an important historic opportunity for observation. First, they are emerging in an unregulated segment of the education market, which would allow us to understand the way markets shape educational institutions. Second, their evolution is not complete and so it is possible to capture some of the process dynamics.

The Korean case appears to make an interesting contrast with that of Japan because the development of vocational higher education has been much more closely regulated by the state.²⁹ In part this has been because Korea did not have a system such as that in Japan where the two-year colleges (*tanki daigaku*) and *senmongakko* competed for space in the market; instead, *jeonmun daehack* appear to have combined the functions of both these institutions.

On the other hand, despite the Korean government's regulation over vocational higher education institutions being based on human resources development policy, there has been a notable deficiency in terms of both financial allocation and clear, consistent strategies for the development of *jeonmun daehack*.

Detailed further analysis of Japanese and Korean higher education institutions is likely to shed light on several important questions about the much-debated roles of market and state in education. If unregulated *senmongakko* have been more successful than regulated universities and junior colleges in meeting the social demand, what can we learn about the role of market forces in education? What has been the social cost associated with the lack of state involvement, in terms of closures and low quality institutions?

Furthermore, a study of *senmongakko* will bring into sharp relief at least two of the major assumptions that seem to underlie most vocational post-secondary education in the United Kingdom and other OECD countries:

²⁹ It is significant that the number of national *senmongakko* in Japan collapsed from 155 in 1995 to a mere 15 in 2005, while the number of private institutions increased by over one hundred in the same period. In Korea, on the other hand, the number of state-run *jeonmun daehack* has increased over the past decade.

1. That the state—and not the individual or the family—should provide the financial support for vocational education (both *senmongakko* and *jeonmun daehack*, unlike even private universities in Japan and Korea, receive very little public financial assistance);
2. That unregulated educational institutions would be inappropriate for 'education' as they would cut corners and not deal with students' educational needs.

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This UNESCO-UNEVOC Discussion Paper provides an overview of vocationally-oriented higher education institutions in Japan and South Korea, known as *senmongakko* and *jeonmun daehack* respectively. These institutions were surprisingly competitive against universities during the 1990s and early 2000s, although they currently seem to be losing this competitive edge, mainly due to the increasing vocationalism of the curriculum in the mainstream universities which they themselves largely stimulated. Despite their significance for understanding the higher education system in both Japan and South Korea, very little, and virtually nothing of an academic nature, has been published about these institutions. This Discussion Paper seeks to locate *senmongakko* and *jeonmun daehack* in an historical, comparative and organisational framework.

This paper appears as the fourth volume in the Discussion Paper series, which is part of the UNEVOC International Library of TVET – an extensive publications programme prepared by the UNESCO-UNEVOC Centre.

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